

Isolation of Bone Marrow Derived Mesenchymal Stem Cells

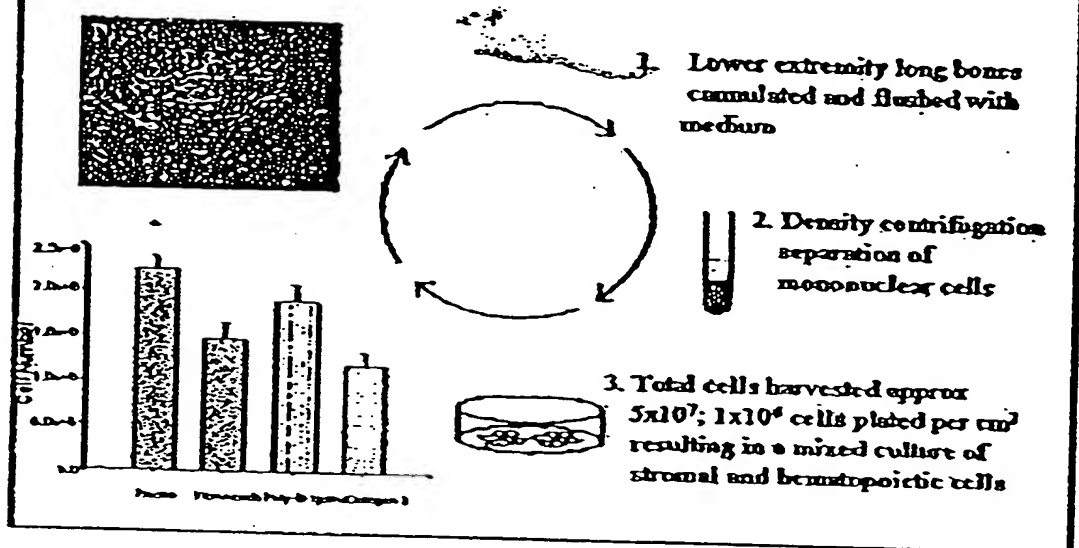


FIG. 1

Proliferation Characteristics of Bone Marrow Stromal Cells

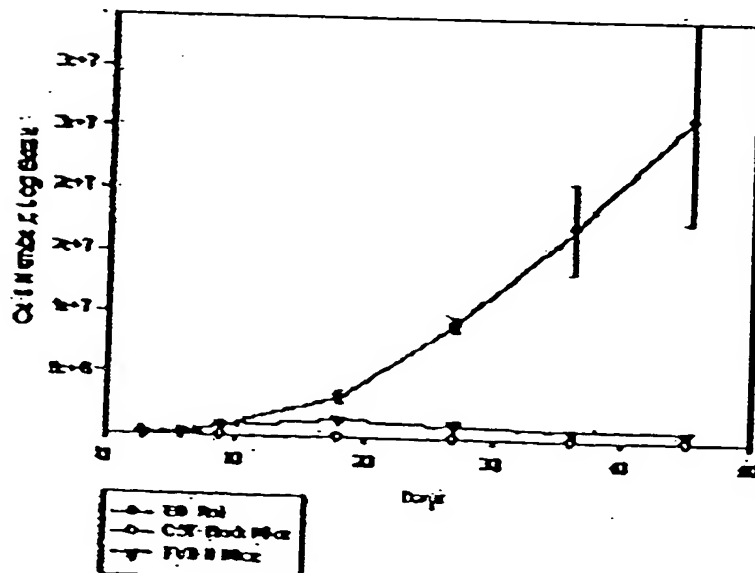


FIG. 2

FIG. 3

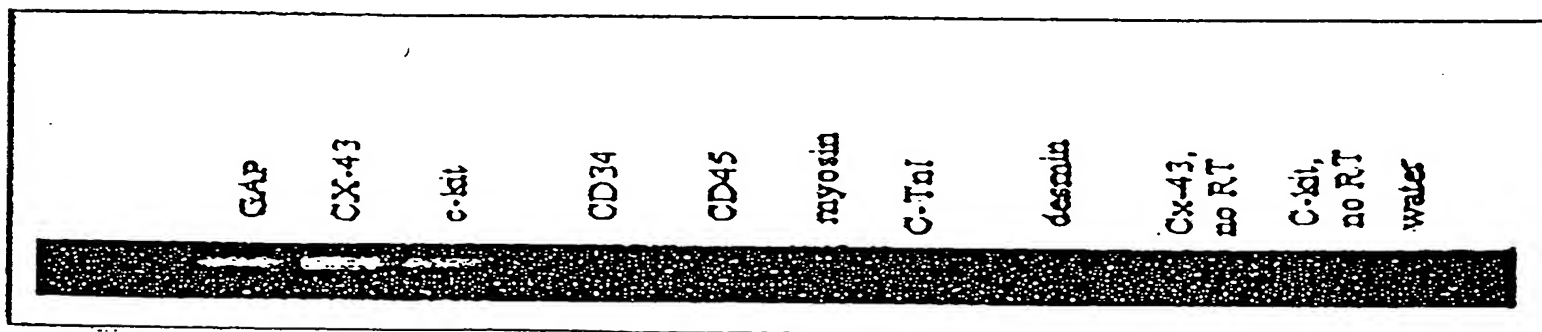
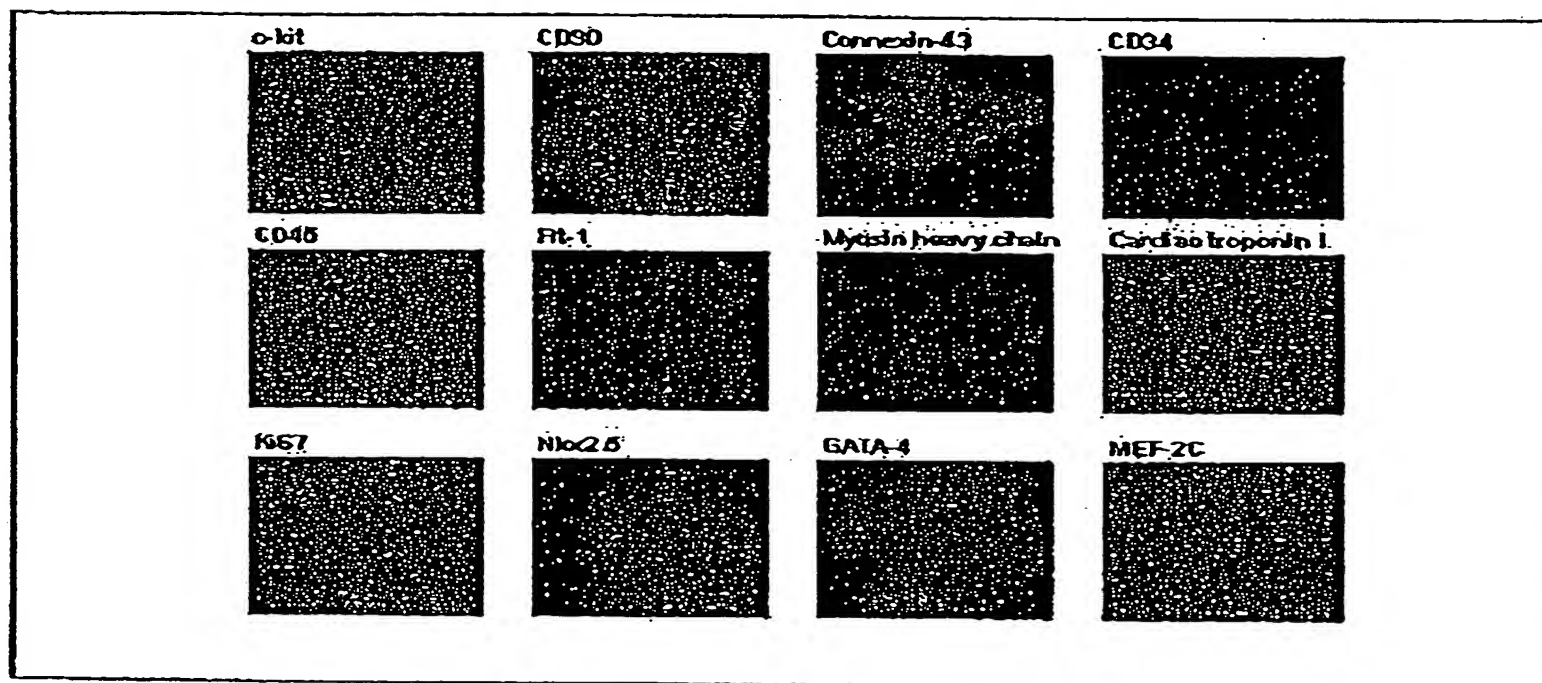


FIG. 4

High Efficiency Retroviral Gene Transfer to MSCs

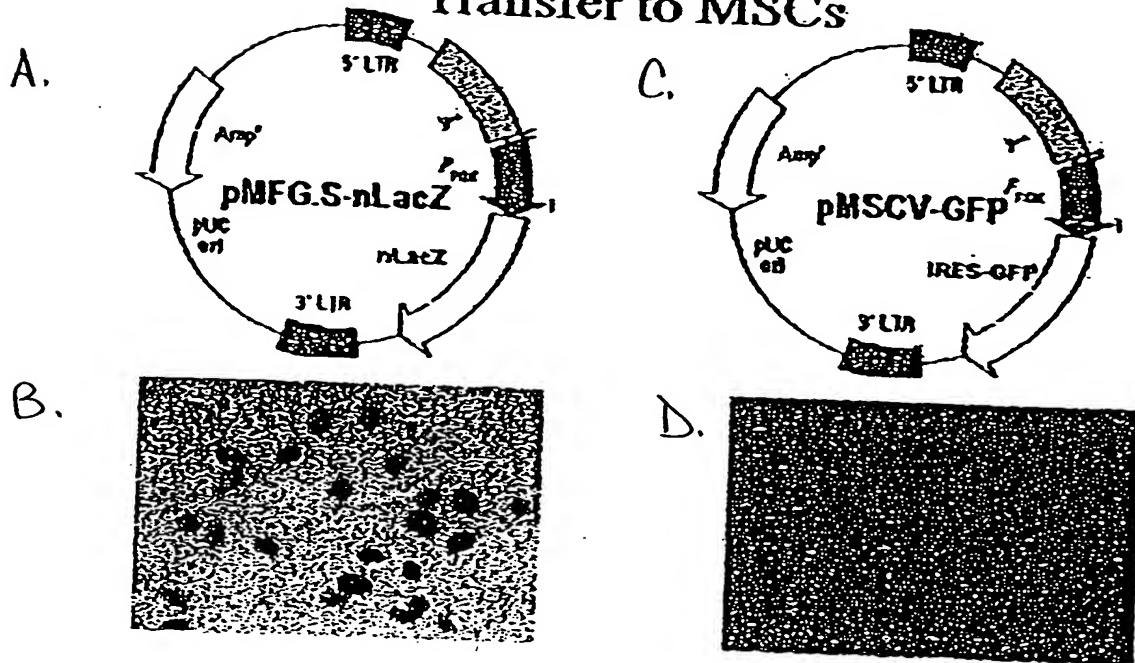


FIG. 5

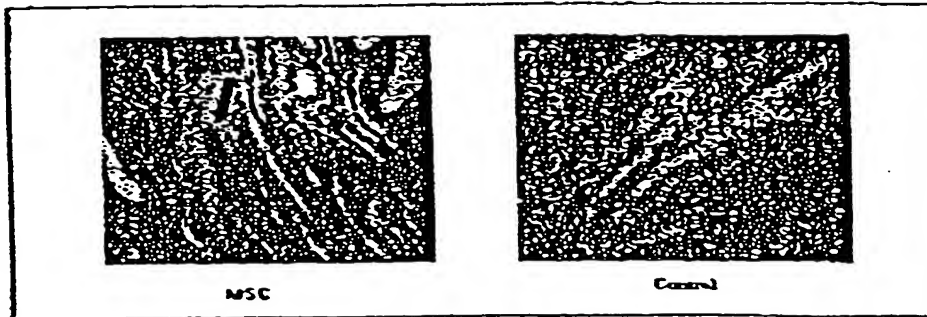


FIG. 6

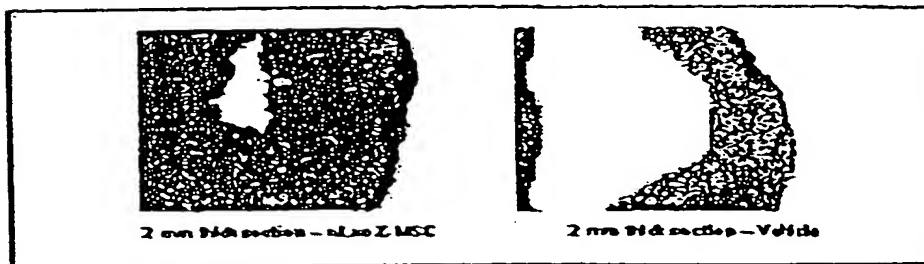


FIG. 7



FIG. 8

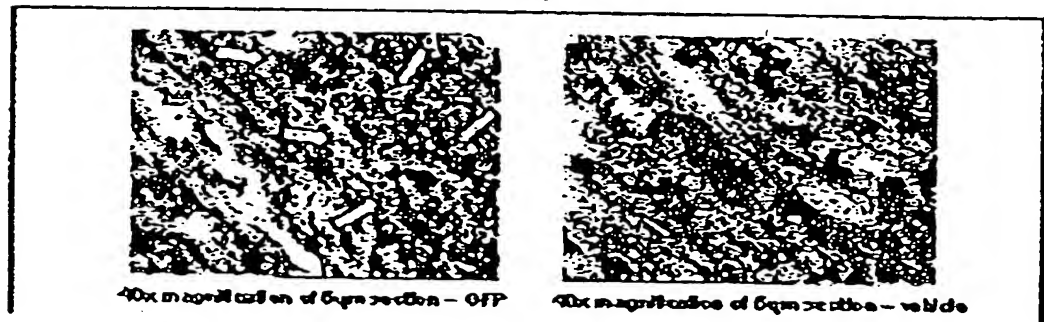


FIG. 9

FIG. 10

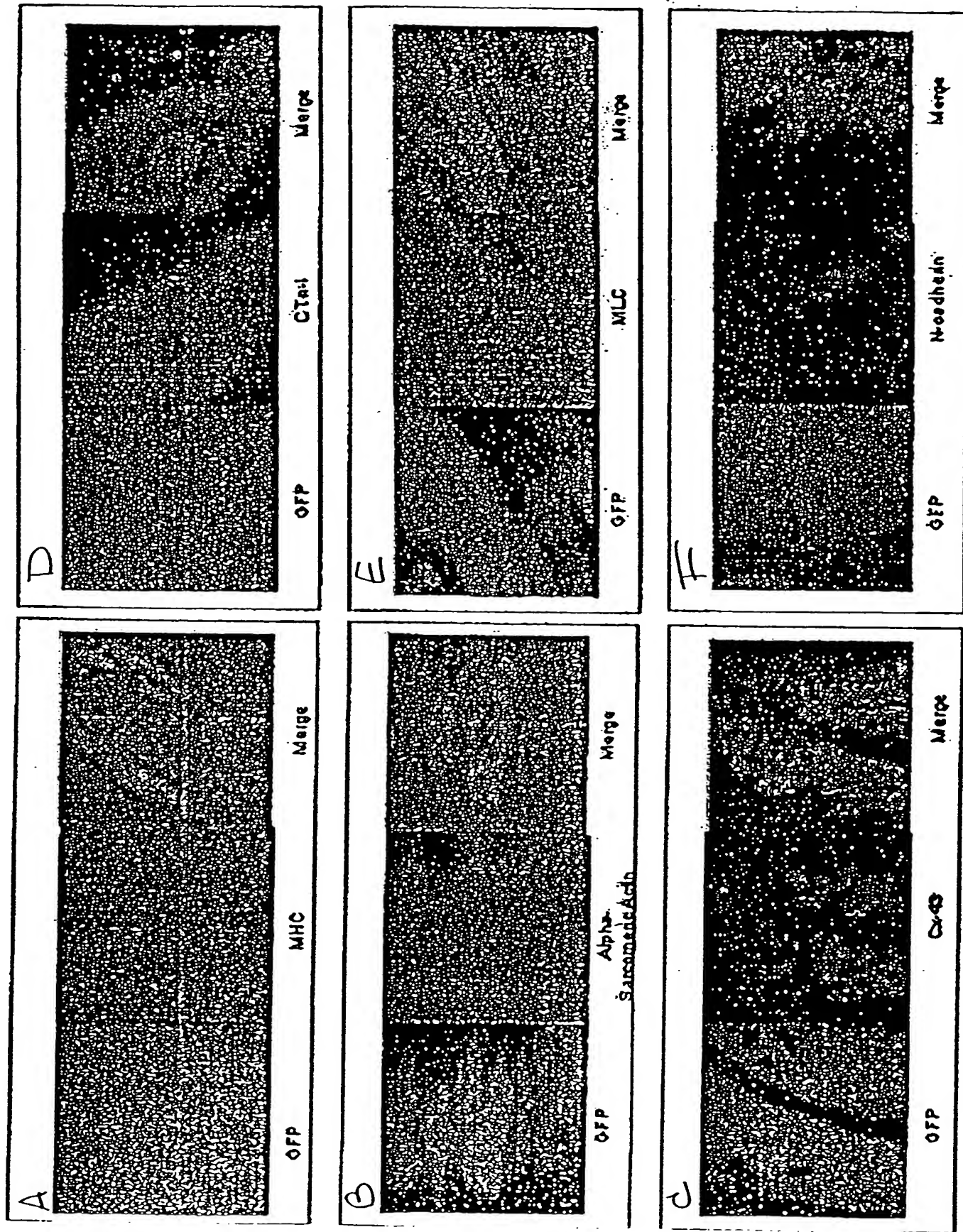


FIG. 11

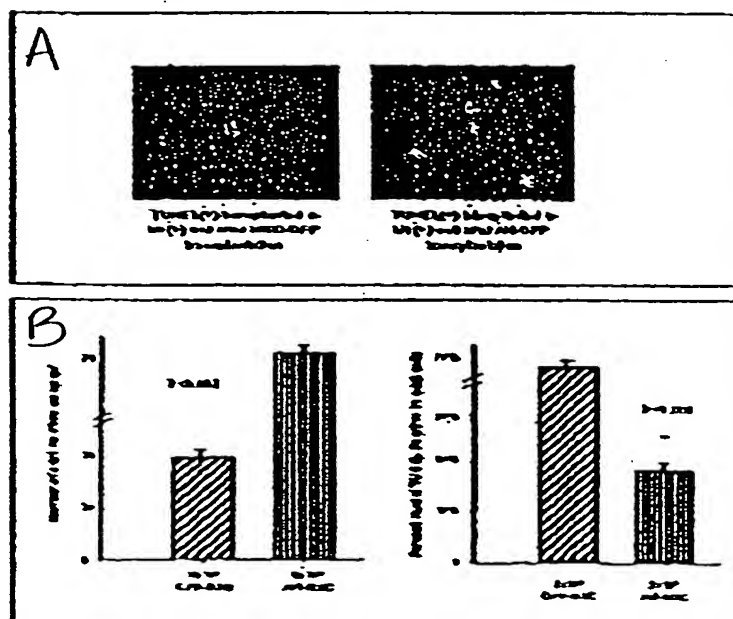
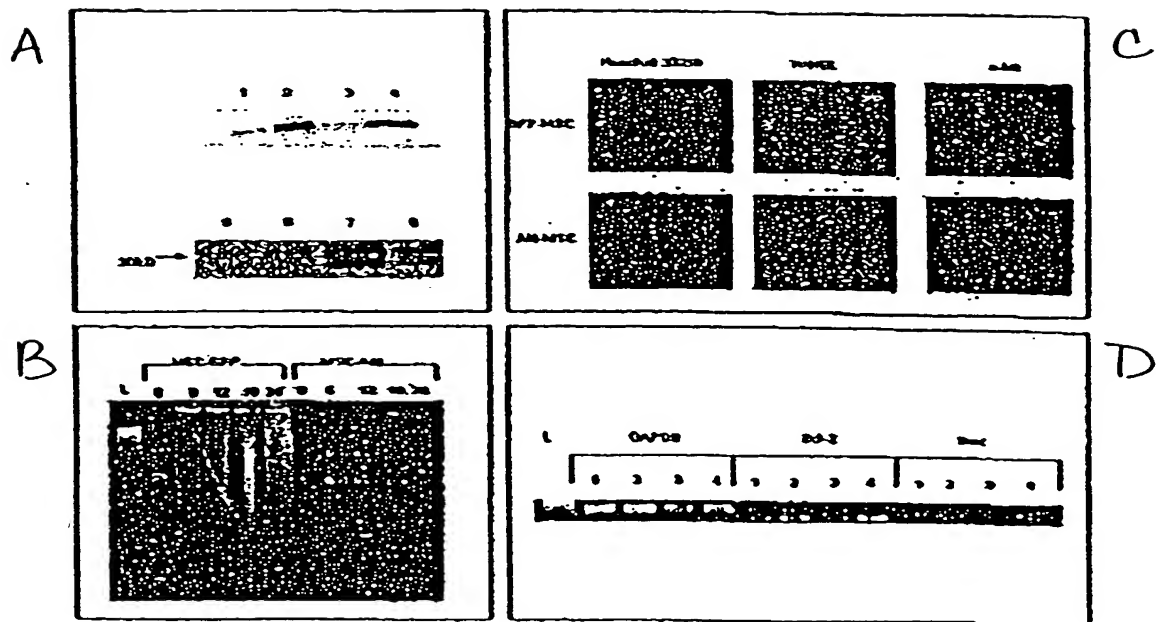


FIG. 12

FIG. 13

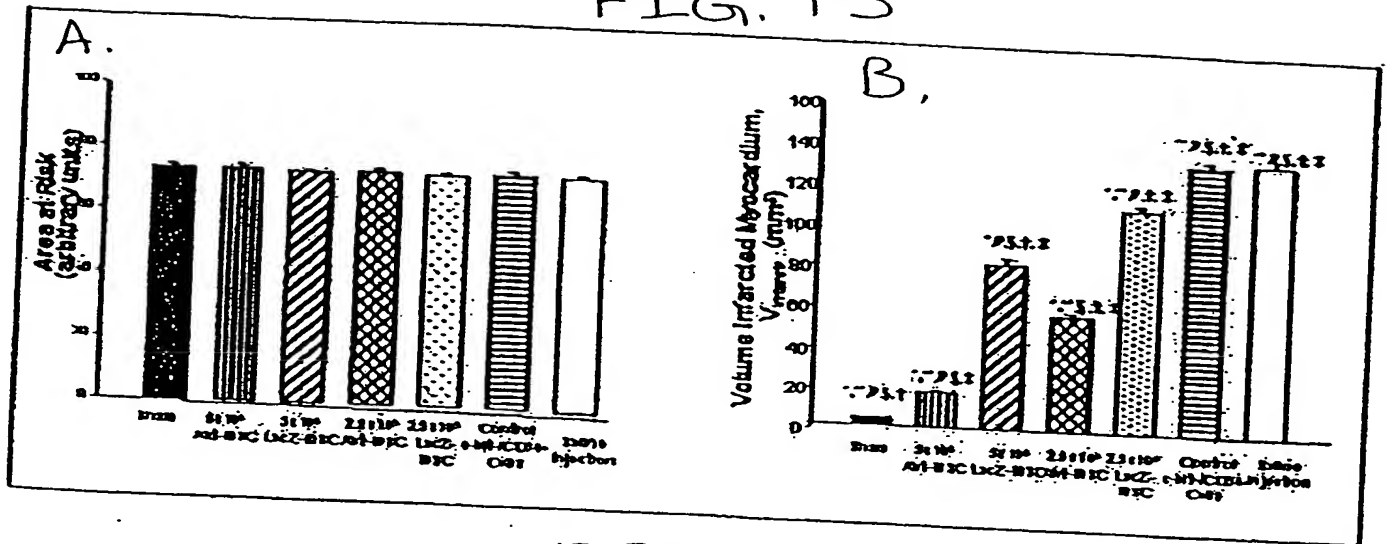


FIG. 14

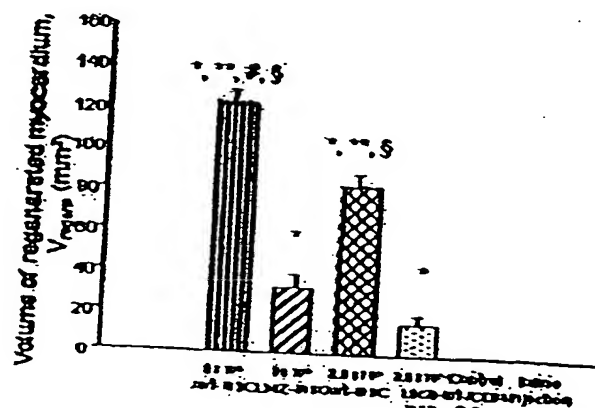
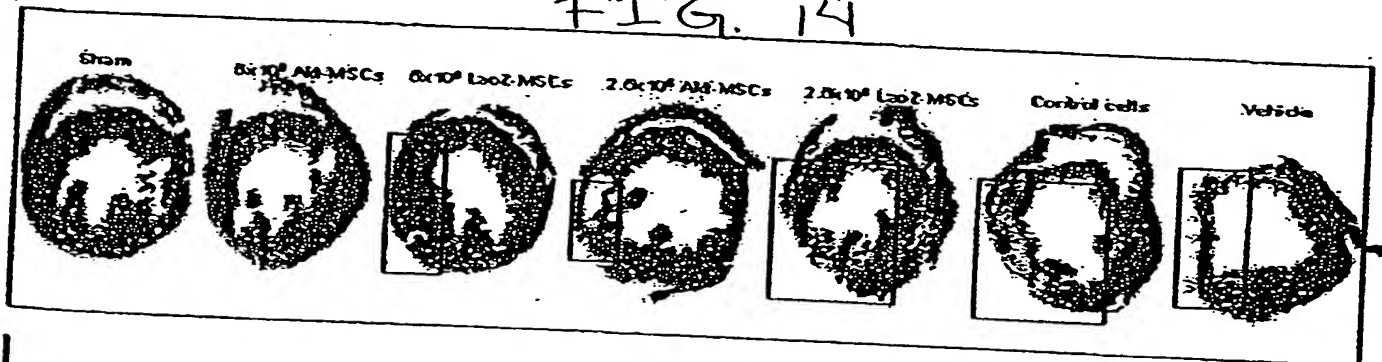
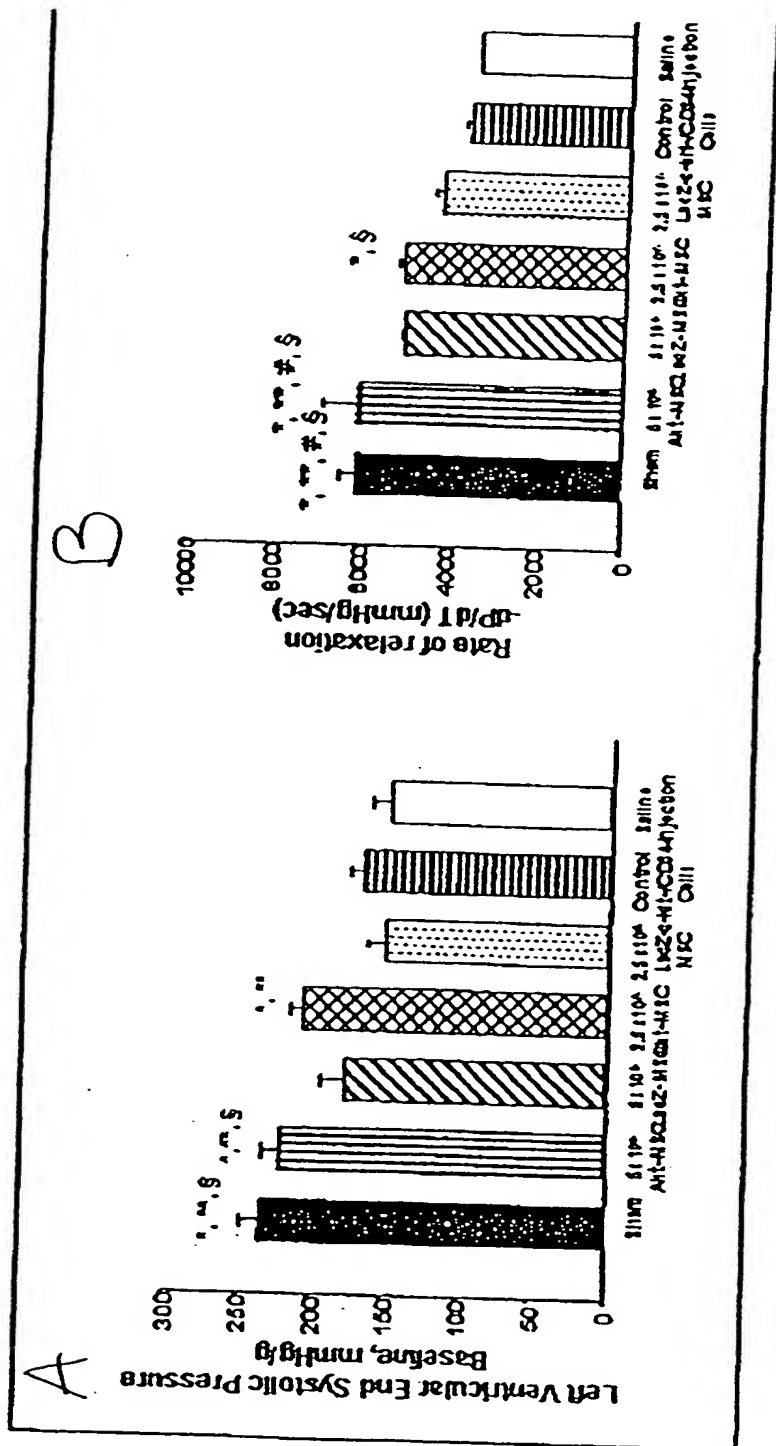


FIG. 15

FIG. 16



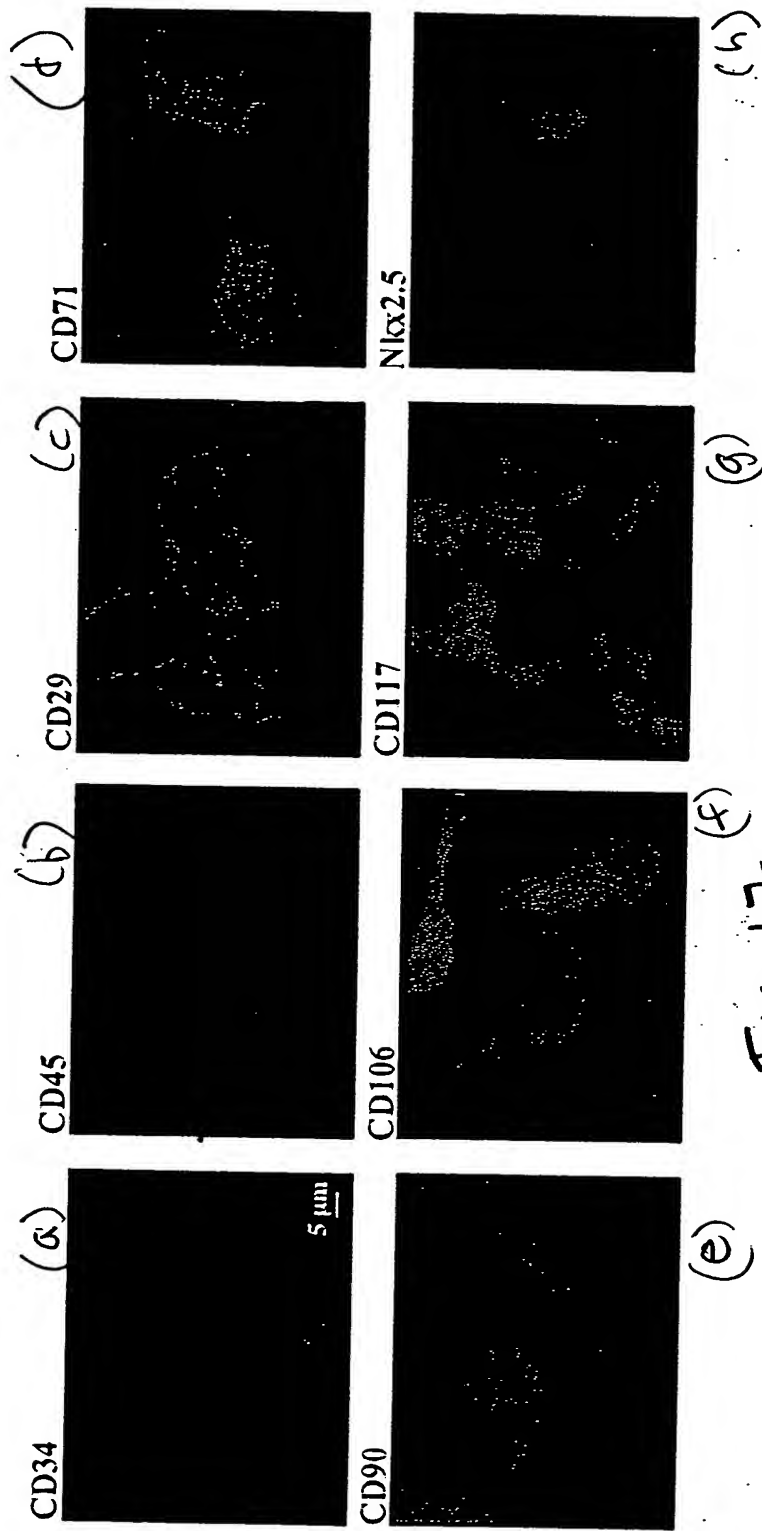
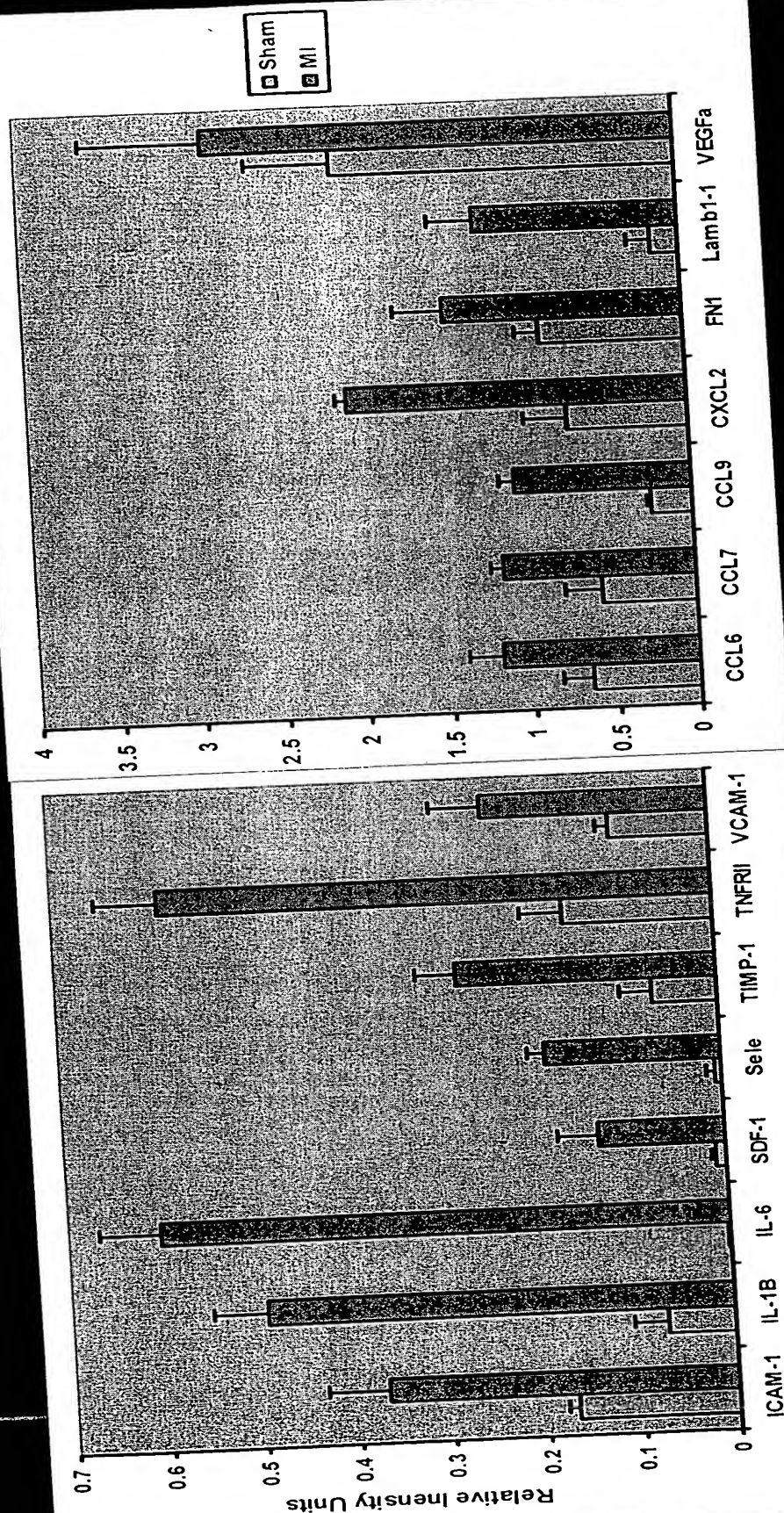


Fig. 17

RT-PCR showing increased expression of genes in MI compared to Sham at 24 hours



Figs 18A-B

RT-PCR showing expression of receptors/ligands in BMSC (P1, passage 1; P6, passage 6), peripheral blood mononuclear cells (PBMC), juxtaglomerular cells (JGC), vascular smooth muscle cells (VSMC).

cytokines/adhesion
molecules in
ischemic
myocardium

counter-
receptors/ligands

BM-MSC PBMC JGC VSMC

SDF-1 ↔ Cxcr4

IL-6 ↔

IL6RA

IL6ST

CCL2, CCL7

↔

CCR2

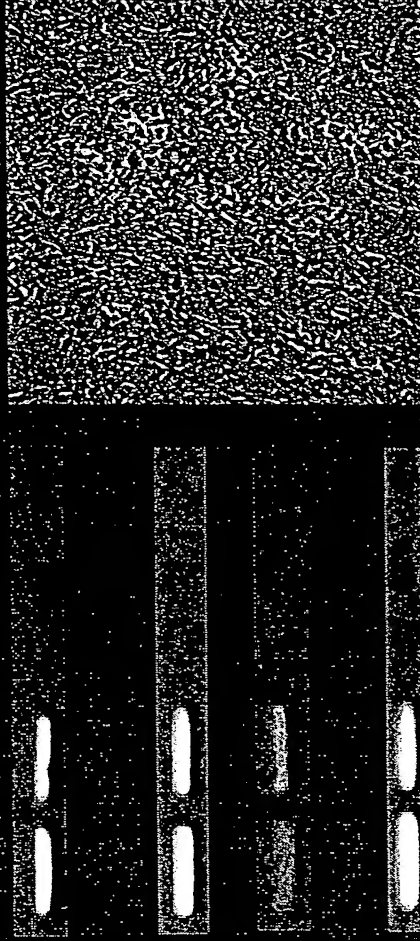
CCL8, CCL13

CXCL1, CXCL2

↔

CXCR2

CXCL3, CXCL5



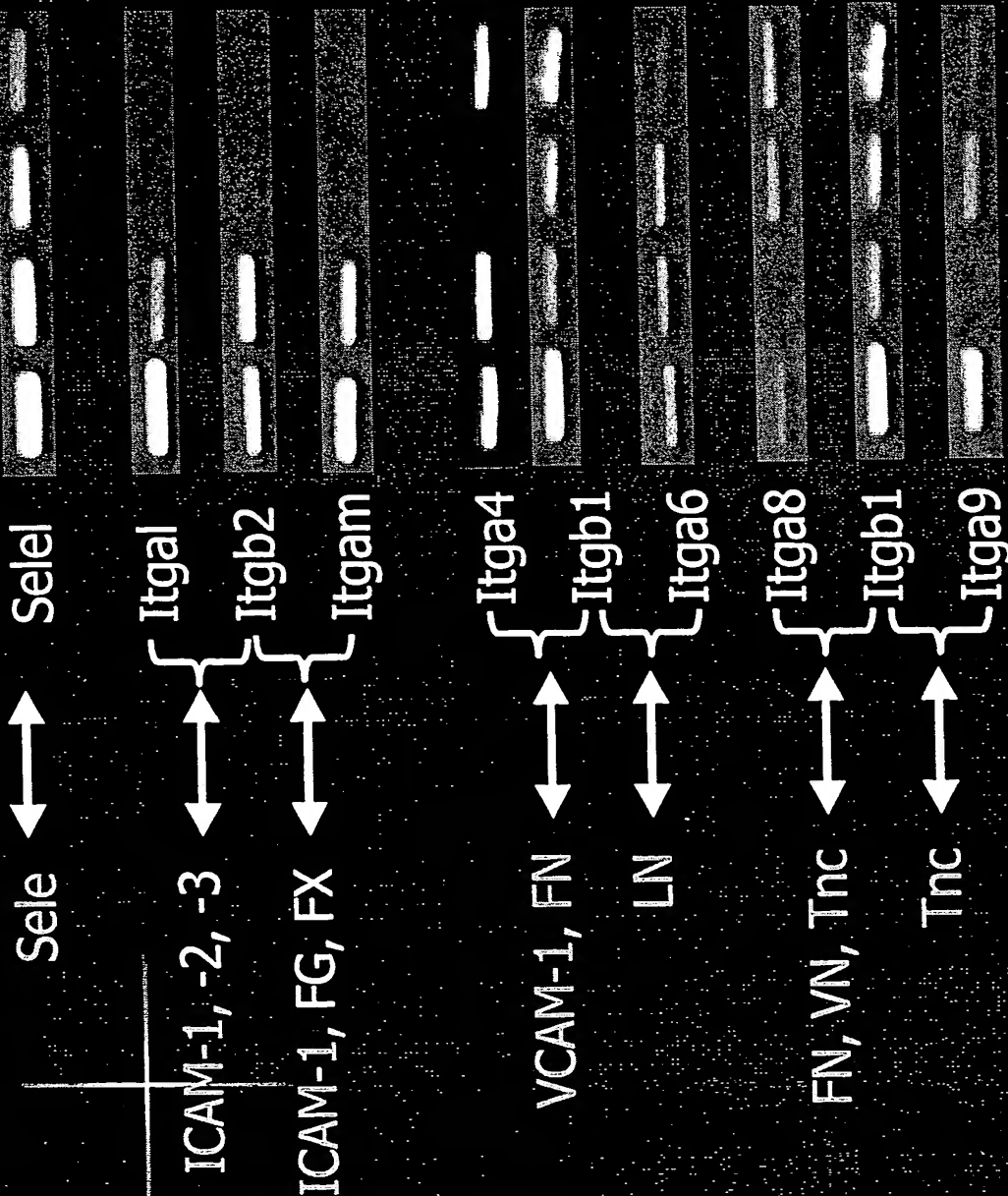
BM-MSC

SDF1, stromal derived factor 1; Cxcr4, chemokine (C-X-C motif) receptor; IL6, interleukin 6; IL6RA, IL6 receptor, alpha; IL6ST, IL6 signal transducer; CC, chemokine (C-C motif); CXC, chemokine (C-X-C motif); CCR, CC receptor.

cytokines/adhesion
molecules in
ischemic
myocardium

counter-
receptors/ligands

BM-MSC PBMC JGC VSMC



Sele, selectin; endothelial cell; Selel, Sele ligand; VCAM1, vascular cell adhesion molecule 1; FN, fibronectin; VN, vitronectin; Tnc, tenascin; FG, fibrinogen, FX, factor X; Itg, integrin.